

THE NAVAL SAFETY CENTER'S AVIATION MAGAZINE

approach

July 2001

SEAL Versus Steel Ingenious!

Just Park It,
We Can Walk From Here



No, I'm Not
Superstitious

approach

The Naval Safety Center's Aviation Magazine

July 2001 Volume 46 No. 07

On the Cover

Photo-composite of an EA-6B on a dark and rainy night by Allan Amen.

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July Thanks

Thanks for helping with this issue...

LCdr. Scott McKenzie

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LCdr. M. J. Burrell

Lt. Michael Horn

Lt. Nick Bruno

JO2 Charles Neff



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Jack Stewart

Many years ago, when I was student teaching as a phys ed major, my elementary school instructor watched as I lost control of my class. We were in the gym using scooters. The kids were having a great time going fast, driving hard, and playing bumper cars. It was chaos and an accident waiting to happen. Unfortunately, that's not what my lesson plan called for. My instructor simply said to me, "Safety eyes need glasses."

It's amazing how a dearth of available teaching jobs and a recruiter's promises can steer one's life. As I fast forward, I find myself as the new editor of *Approach*. In between, I had a career as an NFO in P-3s, doing everything the recruiter promised. I had tours at NAS Moffett Field with VP-47, VP-31, and VP-50. There was a stop at Mather AFB to be a nav instructor, where I flew in T-43s. I was with Carrier Group One, in San Diego, on board USS *Constellation* and USS *Ranger*. I also had a NATO tour with SACLANT here in Norfolk. Lastly, I was the officer-in-charge of the Naval Air Warfare Center, Weapons Division, Detachment Albuquerque (put that on a ballcap), where I chaired the nuclear-weapon systems safety studies. All in all, it was a super career, with over 3,500 hours of highly coveted special-crew time, lots of travel, and promises kept.

I now have an opportunity to put my safety glasses back on. My goal is for *Approach* magazine to help you get home safe. With your help, we can continue to keep safety at the forefront of naval aviation. The articles you write are great and right on the mark; keep them coming. If your article doesn't appear in the magazine, check the *Approach* vault on the web site.

I'm coming here from Albuquerque, N.M where I did get my chance to teach phys ed at SY Jackson Elementary School.





Ingenious!

by LCdr. Joel Zupfer

At the risk of damaging my ego, let me tell you about a situation I feel very lucky to be able to write about. I was a senior lieutenant and functional-check pilot, doing a routine track and balance on an SH-60B. My copilot was an O-4 select and a newly designated HAC, who had transitioned to aviation from surface line and recently had completed his first deployment.

Our crewman had a few hundred helo hours and was new to FCFs. All the ground checks went smoothly, and before long, we were taxiing to the parallel for hover checks. During taxi, I noticed the helo randomly hopping and the flight controls moving. I asked the crew if they felt the hop. They said they didn't, until I pointed it out the next time it happened.

The movement was very small, and we thought it might have been caused by the automatic flight-control system (AFCS). However, securing both the SAS 1 and SAS 2 didn't

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by Lt. Jeff Blake

We've reached the midpoint of our deployment to the Mediterranean and the Arabian Gulf. After an uneventful night OPFOR hop, I'm spending my time in marshal with the typical excitement and apprehension of the upcoming night trap. I'm flying aircraft 206, a Hornet with a full-up system and no problems of note (later analysis will reveal an intermittent IFF). Also airborne and playing a vital role is aircraft 105, an F-14B.

I've commenced a normal Case III approach and, reaching platform at 5,000 feet, switch to assigned button 17 (channel B). Down in CATCC, an intermittent Mode II from my aircraft is about to produce mass confusion. With no Mode II hit from my Hornet, the "Mr. Hand" operator neglects to add 206 to the list of aircraft on the approach. I proceed on the approach. At three miles, I commence tipover on the ILS bullseye, disappointed that CATCC is unable to lock my aircraft for the ACLS approach. Meanwhile, 105 is vectored from the bolter pattern two miles in trail.

Due to the lack of IFF from my aircraft, only one other person now knows that I'm first in line, and that's my final controller. The Tomcat's final controller locks the next hit on his screen, which of course is not 105 but me

Who's on

in 206. At about the same time, my final controller locks the next hit on the scope, mistakenly locking the Tomcat at its tipover. Everything appears normal in my dark cockpit, when, at just outside a mile, I get indications of ACLS lock on. I report the needles slightly up and on, and CATCC concurs. Each aircraft is now flying needles intended for the other aircraft.

You can imagine the confusion on the platform when the Boss calls over the 5MC, "Tomcat, 105, one mile, Alpha." Paddles is looking at a Hornet bearing down with about 15 seconds of flying time until the trap. The arresting gear, fresnel lens, and paddles radios have all been set for a Tomcat on channel A. Paddles desperately scrambles to reset the gear and lens for a Hornet and, in lieu of the

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Photo by PH2(NAC) Jeffery Viano
Photo modification by Allan Amen

the Ball?

...from high above the glideslope to well below, all to the tune of blood-curdling power calls, and then finally the waveoff. In the cockpit, I heard none of it...

Heck, the Skipper's Flying— What Could Go Wrong?

by Lt. Ryan Bryla

It was August in the Arabian Gulf, and we were the early launch for the last event of the day. Unlike the four-hour Operation Southern Watch (OSW) missions we'd been flying for two months, this night flight was single-cycle, unit-level training. The aircraft commander and pilot at the controls was our skipper, a seasoned aviator with close to 4,000 hours in type. I was sitting copilot, as a recently designated 2P nugget with just more than 500 flight hours.

We launched on time. After the catapult shot, we climbed to altitude to assume station profile in the northern Arabian Gulf operating area. My role that night was simple: talk to center and be a good copilot.

As the skipper took mission profile, I coordinated with center. Once we were established, I worked out a rough estimate of fuel remaining at our scheduled recovery time: 8,500 pounds, or 4,500 pounds over the E-2C max trap. The training hop went smoothly, and soon we had 20 minutes until the first ramp time. When the last fighter checked in through Strike, we cleaned up, put the

throttles forward and headed toward mother. The skipper and I began the approach checks and decided not to adjust our fuel state until we heard the first aircraft push out of marshal.

After I checked in with marshal, I heard the first Hornet push from the bottom of the stack. We decided to adjust our fuel state by 2,000 pounds down to 6,000 pounds remaining, which meant we would have two hours airborne before reaching bingo. We reported to the crew that the fuel dump was on and got the reassuring backup response from the CICO, "Roger, fuel dump on."

About the time we turned on the fuel dump, I realized our MFCDUs (the pilot interface to the upgraded E-2C INS-GPS navigation suite) displayed our mission flight plan and not our divert plan. I decided to switch the flight plan as briefed. I told the skipper, changed the flight plan and sat back thinking, "We're ready to go, nothing else to do now. The skipper is heading to marshal, we have about 10 minutes until push time and all systems go."

A couple of minutes later, I looked at the CDI to see how the skipper's point-to-point was going.

Out of the
corner of my eye, I
noticed a yellow caution light.

"That's weird," I thought. "I don't remember ever seeing the master-caution light come on." Then I remembered the fuel dumps. We had dropped them out of our scan and forgot to secure them. I looked at the CO and said, "Fuel dumps!" He reached up and turned them off. As the caution light went out, our fuel was down to just more than 2,900 pounds.

After considering for a few moments, the skipper told me to call marshal and inform them of our situation. I toggled the mike and said, "Marshal, 602, state 2.9."

After a couple of seconds and sounding surprised, marshal responded, "602, confirm state 2.9?" I confirmed the fuel state and requested an immediate push to the ship. We were told to turn direct mother and maintain altitude until clear of the stack.

While the skipper turned the aircraft, I grabbed the NATOPS pocket checklist and estimated a bingo to the nearest divert to be 1.9. I told the CO, and he requested the CICO break out his pocket checklist and double-check my numbers. We continued inbound as marshal spread the news to the rest of the stack. This time it wasn't a result of bolters or foul-deck waveoffs, it was us. Once clear

of the marshal stack, we began our descent and switched to the final controller. The CICO came up with a bingo of 2.3, higher than what I'd figured.

The skipper decided to use the most conservative number, setting our bingo at 2.3. Our final-approach controller began giving us vectors to intercept the final bearing. Once we leveled off, the fuel-quantity gauge indicated 300 pounds over bingo.

The skipper dirtied up, noted the fuel state and started the approach, knowing it would be his only look at the ball before bingo. We picked up ACLS at about four miles; the skipper put the piper on the needles and kept it there all the way to touchdown for the OK 3-wire.

I sat in the aircraft for a couple of minutes after shutdown and tried to figure out how it was possible for a crew of five to put themselves in this situation. It was easy to see how it happened. First, repetitive operations had become too routine. After four-hour hops, we would be only about 1,000 pounds over max trap. I routinely held off on the dumps until a couple of minutes before push time to ensure we had the gas for a "Hummer dance." Adjusting our fuel state prior to marshal was out of the ordinary and broke my habit pattern of adjusting while in the marshal stack. Instead of focusing on the task at hand—adjusting fuel—I let myself be distracted with the navigation plan in the MFCDU.

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It was another clear, summer night in Milton, Fla.—a perfect evening for a few of my last flights in the HTs. I had just finished RIs and was finally an instrument-rated pilot. All that stood between me and my wings were a couple of helicopter-tactics flights. After the drudgery of RIs, HTACs were a welcome relief, and as close to fun as the training command gets. I already had completed several of them and was looking forward to another great flight.

The afternoon had been standard. I'd gone to the gym, eaten some dinner and showed up about an hour before my brief time. The SDO informed me that I was going to brief in the aircraft after a hot-seat. I had plenty of time to study, do a weight-and-balance, and watch the sunset.

My aircraft called inbound. I went to pick up my gear and wait in the crew-change area. After a standard swap, my instructor and I went through the brief items and did the required NATOPS and

ORM briefs. It was the IP's third go of the day, and the air conditioner was down, but he seemed ready to go.

HTAC-4 is normally a short flight: a five-minute hop over to Santa Rosa OLF for some night maneuvers and then back to South Whiting for a few show-and-tell autos. The night ops at Santa Rosa went great. I was flying well, and the IP and I discussed my upcoming selection while we were in the pattern. We finished up what we needed to do and headed back home for the night autos.

As usual, the pattern was crowded with people trying to finish up their flights before the field closed for the night. My IP took the controls as we entered the downwind. He talked about the procedures he was about to demonstrate and some techniques to use when I did it next time around. He pointed out some common student mistakes and how a power-recovery auto might give you a different sight picture at night.

One Sandbag, No Waiting

by Ltjg. Dan Keeler

We turned onto a left base and set up for a standard, 90-degree entry. He entered without any problems, and I checked his airspeed. Nr and ball as we descended. They looked good. As I turned to watch the night rushing by, we approached our flare altitude. "Flare, twist grip, twist grip, twist grip full open," I heard as I continued to look outside. I looked back in as we got ready to recover.

Something didn't feel right. "Push and pull," he said and kept pulling and pulling and pulling the collective. Hmmm... no engine response, followed by a low-rpm light and horn.

"Oh, crap," I thought. "This is going to hurt."

"Twist grip!" I yelled but it was too little, too late. He tried a low-rpm recovery to no avail.

We slammed into the ground, bounced and spun down the runway. Everything does move in slow motion during an accident. It seemed like an eternity before we came to a stop. Tower called, "Can you clear the runway?" After a quick visual inspection, we decided that wasn't a good idea.

The skids were spread completely, our chin bubble broken, the tail boom was bent, and we had no idea how badly the transmission was damaged. We shut down the aircraft and were greeted by what looked like every fire truck and ambulance in Milton. It wasn't how I had expected to end my evening.

My instructor immediately said it wasn't my fault, but I don't think he should get all the blame. I had taken all that ACT training, tossed it out the window and had acted like a 180-pound sandbag along for the ride. He thought he forgot to close the twist grip on entry. I didn't confirm it. It's hard to do a power-recovery auto without the engine on line. I assumed that senior pilots don't make mistakes. I also spent too much time twiddling my thumbs in the left seat and not enough time backing up my pilot in the right seat. ✈

Ltjg. Keeler was a replacement pilot at HC-3 when he wrote this article.

Photo-composite by Allan Arnen

ORM Corner

Fatigue, Frustration and... That Deer on the Runway

Our squadron had been back from cruise for only two months when we again began bouncing for the boat. Deck certifications and CQ requirements made it seem we were right back where we had been a year ago, at the peak of the work-up cycle. The first CQ period in November went smoothly, and I had the good fortune to be the designated squadron LSO for the detachment. We were blessed with good weather and a deck crew still fresh from cruise. The downside was the 1.5-hour taxi-fam-at-night necessary to qualify the yellowshirts for the next night CQ.

Prior to the second CQ period, the squadron's head LSO developed a realistic FCLP plan to work around Thanksgiving and still complete the training. Unfortunately, the third squadron LSO would be in San Diego for three weeks of FAC(A) School, so we were down to two. I quickly realized the flight-deck pay received on cruise was actually compensation for the long nights at our outlying field. Every night, I was either bouncing or waving. Finally, on the last

night of FCLPs, I was going to get home by 2000. At least, that was the plan.

We briefed at 1630 for an 1830 takeoff. The weather looked good, with maybe a bit of a crosswind at Fentress. My RIO and I had flown the FCLP pattern lots of times together, so the only new ORM issue that came to mind in the brief was getting into and out of Fentress.

We knew the jet had some AOA indexer problems, but the gripes were signed off. The indexers looked good when we tested the lights. As I was keying the mike to call base to check us out of the line, our newest nugget pilot relayed to maintenance that his jet was down because of a problem with the digital flight controls. Being a team player, I decided we should hot-switch crews. I was hoping I would get the OK from the head LSO to go ahead and call it a night. I guess my bounces hadn't been as strong as I thought; he told me to hot-switch into the next jet back.

An hour and a half after hopping out of the first jet, we hot-switched into another one. I checked my watch, and we were already an hour past our first land time when we taxied to the duty runway. As I wiped out the flight controls, they felt all wrong. I couldn't get full throw in the aft and left quadrant. The stick was fighting me, trying to re-center. We taxied back to the line just as our original jet was coming out of the fuel pits. The RIO in that jet asked us if we wanted to get back into that one.

My "I-can-hack-it voice" started its mental dialogue. "Come on, you're already dressed," I told myself. "You've already put five hours into this event. You're an LSO, give the new guys a good example. The head LSO is waiting

ORM Corner

is a bi-monthly department

Please send your questions, comments or recommendations to Cdr. John Anderson or to Capt. Denis M. Faherty, Director Operational Risk Management, Cdr. Anderson's address is: Code 11, Naval Safety Center, 375 A St., Norfolk, VA 23511-4299. (757) 444-3520, ext. 7203 (DSN-564). E-mail: janderson@safetycenter.navy.mil

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How Many Points Does Have?

by Lt. Mike Horn

I heard our nugget pilot tell tower to get somebody to chase a deer near the duty runway.

for you." At the same time, I was talking to the maintainers who were troubleshooting my jet. I could feel my frustration rising. Then I heard our nugget pilot tell tower to get somebody to chase a deer near the duty runway.

I still was planning on hot-switching. I also was concentrating on the plane captain's wipeout signals and wondering how many points the deer had. Then base called to tell me the original jet still had no AOA. I finally decided to call it a night.

What helped me decide to hang it up was envisioning a scenario where people were questioning my judgment, and I was having to defend myself. What if I tried to hack it, bounced, and then hit that deer on the runway coming back home? For starters, GE 110 engines cost more than \$3 million each. Why man-up three times at night for FCLPs, three hours after scheduled takeoff time?

Many times we brief ORM, but we don't continually update our risk assessment. In this case, I identified new hazards of fatigue, frustration, and aircraft status (not to mention the deer) and applied them to the FCLP mission. Did the mission outweigh the risks? No.

I finally made the right decision, because you're reading about it in *Approach* instead of on the message board.

Lt. Horn flies with VF-143.

Photo-composite by Allan Arnen

Keep Your Head Out of the Cockpit

by Cdr. Mike Mahan, USNR

It was a typical summer evening at our air-station training base in South Texas. I was in my second year as a T-2 SerGrad, closing in on my 1,000-hour patch and working hard to make Instructor of the Month (by flying the most hours). The squadron was in a PTR push, and everyone was flying three hops per day, six days per week. Somehow I got on the noon-to-midnight shift—flying two day sorties and a night event—for what seemed like weeks on end.

My student and I briefed, manned up, and launched on our night fam 1 into clear skies. The students were getting the hang of the "Battle Buckeye," and this hop was a first-look, safe-for-solo, check flight. We would have to fly a 30-minute VFR navigation route, then get in the pattern for some circus landings. Very straightforward.

The nav portion went well, and we eased our way in to the bounce pattern. Like most nights in the training command, the pattern was full. My job was simple. I had to coach my young apprentice through three full-flappers; a half-flap, single-engine, boost-off; and a no-flap, no-speedbrake

fullstop. And, by the way, keep track of the other dozen or so orange-and-white jets. No problem, I was selectively retained.

Soon it was no-moon dark. I wondered where all the other commanders were. We completed the normal stuff, and it was time for me to pull an engine on the ensign. "Simulated engine failure," I declared. My junior birdman recited his procedures, and we turned off the abeam. Not enough rate-of-descent, high 90, and a clara, high start. Squadron SOP required us to wave off if we didn't have a ball *somewhere* on the OLS. So we went around.

After discussing that first attempt, we tried again. Same result, high all the way, and a waveoff. I was going to have to earn my instructor pay. Upwind, crosswind, and downwind, I pontificated on the virtues of Zen and the art of the single-engine approach, but it just wasn't soaking in. I began to lose my situational awareness.

As I focused more and more on my student and his performance (remember, this was a check ride), I lost track of the solo student whom we were following. That student flew wide abeam and

As I focused more and more on my student and his performance (remember, this was a check ride), I lost track of the solo student whom we were following.

Photo-composite by Allan Amen

long in the groove. Meanwhile, my student and I were tight abeam and turned early. We once again were high, rolling into the groove. Then I heard someone call the ball! All my attention had been drawn into the cockpit, and I was momentarily confused. We were in the groove, but the ball call hadn't been my student's voice. Yee-ikes! Simo run in the groove!

I quickly looked down and to my right, and sure enough, about 100 feet below and 300 behind, was the solo. At the same time, the tower saw the near-collision and waved us off. Aggressively we

went around and, once clear, I swallowed hard to get my heart out of my throat and back into my chest. I thanked my maker, composed myself, and we completed the hop.

After a lengthy debrief and discussion about VFR-lookout doctrine, I signed off my student as "safe for night solo," contemplating our close-call. We were both guilty of not keeping a good VFR scan. Loss of Situational Awareness is a helpless feeling, and—assuming you survive it—a humbling one, too.

Cdr. Mahan is the XO of VR-55.

VFR IN A THU

(NO, NOT US, THE OTHER GUY!)

by Lt. Christopher Ognek

So there we were in our EA-6B on another dark and stormy night over southern Japan. The weather was starting to break up, and our plan was to practice flying the ball during several GCAs. Thunderstorm cells were sitting all around Atsugi, but after our first approach, a hole over the field seemed to offer a ceiling greater than 4,000 feet. After an uneventful, on-and-on first pass to runway 01, we picked up our vectors for the box pattern. On our turn to base at 16 miles and 3,000 feet, the control-

Photo-composite by Allan Amen

UNDERSTORM

ler told us to expect a vector past centerline for an aircraft on final. As we shot through centerline, I briefly picked up what I thought was that aircraft.

He was at my 9 o'clock and slightly stepped down. Our headings were 90 degrees out, and I knew we passed directly in front of him because his lights changed from dim to bright to dim again, with no apparent change in aspect. Range at this point seemed to be about three miles. I lost the lights in the clouds after about eight seconds, and we then received a vector of 180. I eased the turn at 20 degrees AOB to increase separation from the GCA traffic.

After about 30 degrees of turn, I picked up the lights again, only this time they grew from dim to bright. They were within two miles and coming right for us. I climbed aggressively and accelerated, while my crew started talking to the controllers, beginning with GCA (a Japanese controller) and finally Approach (a USAF controller), to explain our emergency squawk. My maneuvering brought us from 3,000 feet and 250 knots to 5,500 feet, 60 degrees AOB, and almost 400 knots, all within a five-mile hole surrounded by thunderstorms.


Through 90 degrees of turn, the GCA traffic seemed to accelerate and climb directly toward us. CPA was approximately one-half mile but seemed much (make that *much*) closer in the darkness, a problem compounded by bright white lights aimed directly at our aircraft. At the most extreme point, I thought I was going to have to pull into the threat, out of plane, to force an overshoot because of the continuing CBDR situation.

We finally started to see some separation and discussed the possibility of the aircraft trying to join

on us. As we decelerated to 300 knots and 30 degrees AOB, the separation continued to increase, so we squawked normal and tried to get picked up for a full stop. After being denied for the overhead due to IMC field conditions, we called the field in sight at 3,000 feet and eight miles (a typical scenario in these parts) and were cleared for a straight-in.

After piecing the parts together, we figured out the aircraft was a Japanese P-3 at 19 miles, 2,500 feet, on extended centerline, and flying VFR in a thunderstorm! He had initiated a climbing turn directly into us with a CPA of less than a mile.

There were plenty of lessons learned. Good lookout doctrine is crucial, even when operating under IFR. When you have to maneuver and break a vector or altitude assignment, be sure to squawk emergency. Know the configurations of the lights on all your home-based aircraft, both American and Allied. If I had been able to determine that it was a P-3, I would have known it would have been impossible for him to close on me at 400 knots. Know the altitude blocks of your local GCA and approach controllers. When we left 3,000 feet, we immediately popped into approach control's airspace and sent them spooling through the roof with our emergency squawk. We should have initiated comms with them, instead of trying to sort out things with a Japanese controller who didn't have a clue.

Finally, as we all know, lights can play tricks on you at night. It is very hard to determine range and closure of an unfamiliar aircraft when you're staring at bright white lights. In my case, I estimated the traffic to be a little closer than it was; I'm glad I didn't go the other way and hesitate. 

Lt. Ognek flies with VAQ-136.

SEAL Versus Steel

by AWCS(AW/NAC) David Peters

This story is the hardest one I've ever written. I was the crew chief during a Helicopter, Visit, Board, Search and Seizure (HVBSS). We were operating off the coast of South Korea. It was a moonless night. The sea had a slight chop, and there was a steady coastal wind. We could see the lights of the coast directly off the nose of the aircraft.

When the SEAL team came aboard, we discussed their SOP for the extraction. They had been using the Jacob's ladder for recoveries, but my squadron had found that to be difficult (it also increased hover time over the deck). I suggested that we use a double-rescue-strop hoist recovery that another SEAL platoon had shown us. This technique was similar to the procedure used for extracting rescue swimmers from the water.

As usual, we spent time applying operational risk management to this mission. We prepared an ORM brief using input from pilots, aircrew and the SEAL team. We briefed each aspect of the mission. We practiced the extraction procedure on deck, using a static aircraft and the hoist. Next, we practiced over a large deck during the day, then a smaller deck a few days later, debriefing each event. The team had no problems.

A flight of two HH-60H helicopters departed the carrier and established communications with the target ship, a DDG. The insertion, hover cover, and search portions went as planned. My HAC noted the lights from the coasts were causing the pilots' night-vision goggles to bloom, but it was workable.

We watched Dash 2 recover their team, then depart to get fuel. We moved in. Within several minutes I had hoisted aboard all but the last two team members. As they came up to the cabin floor in the helicopter, I covered the closest man's head with my hand and hoisted them both to the full-up position. The outboard man put his feet in the door, and I

grabbed the loop on the rescue strop to bring them aboard. The other SEAL looked like he was riding low in the strop. I pulled twice, but nothing gave. I thought about lowering them back down, but with one man's feet in the door, I would risk losing him. I asked my left gunner for help, keeping a little tension on the strop. But before my crewman could get to the strop, the SEAL fell about 15 feet to the steel deck.

I immediately told the pilots, and we pulled in the other SEAL. I asked the HAC to report a medical emergency to the ship, and, after some confusion, we moved off the deck. The last view I had was of the SEAL face down on the deck with his weapon still slung. A pool of blood was forming around his head. He wasn't moving.

The SEAL's Kevlar helmet, with strap and chin cup secured, had been knocked off his head and was lying in the safety nets. One of the ship's crew came out on the deck with a flashlight. As he shined the light on the SEAL, incredibly, the SEAL got up and walked to medical! We landed and had the injured SEAL back-boarded and transported to a hospital within minutes.

The debrief was tough. The injured SEAL was their platoon LCPO, and I had found him to be the most knowledgeable and professional SEAL I'd worked with. I felt terrible and didn't know what to say. The SEAL's prognosis was poor. I was afraid he would die. I didn't sleep for a few nights, but we eventually heard that he was awake and responsive and would be transferred stateside as soon as possible.



Photo-composite by Allan Amen

This nightmare occurred because of several factors. I believe the SEAL did not have his weapon secured, and the stock caught on the cabin-door track. The sling then cut off the blood flow to his head, causing him to black out. I didn't notice the problem and wasn't prepared to deal with the situation. The cabin was dark. The HAC had asked if I wanted the cabin lighting on during the extraction, but I had declined because of the lights from the coast.

We had briefed having the SEAL team secure their weapons before hoisting. Our ORM process had covered the general hazards of hoisting but hadn't covered the possibility of a team member becoming hung up in the door.

We learned several simple lessons from this mishap. First, hoist recoveries are effective if done correctly. The platoon CPO asked his team how they felt about the hoist recovery, and, to a man, they agreed it was the safest recovery method they had used. To prevent mishaps, the

rope master has to do a final check on deck prior to hoisting. All loose equipment, including weapons, should be hoisted separately in kit bags. The cabin lighting should be used. All team members and aircrew should be briefed on this mishap before similar operations.

The aftermath of this event opened my eyes to several attitudes we mere mortals hold about special operations personnel and ORM. In my conversations with other officers and chiefs, the prevailing attitude was "They're SEALs, and it's part of the job." I disagree. We all take risks in our work, but to write off a severe injury as "part of the job" is just asking for more.

ORM is not the answer to all our operational prayers, but it is an outstanding tool and always should be employed. It doesn't guarantee accident-free operations. Experience and communication always will have the greatest real-time influence. I get frustrated trying to communicate my experience to other teams and squadrons. There seems to be no forum to exchange lessons learned between the helicopter and special operations communities. There is no model manager for the CSAR-NSW mission. Other high-risk missions have model managers to standardize procedures and equipment, and they are in place to keep Sailors from getting hurt or being placed in unnecessary risk. The CSAR-NSW mission should have one, too.

AWCS(AW/NAC) Peters is the Ops LCPO in HS-14.

Just Park It, We Can Walk from Here

The brakes not only were hot, they were fused, which left us stuck in the middle of the taxiway.

by Lt. Mike MacNichol

So far, the week had been painful for the squadron, thanks to numerous aircraft maintenance problems. We were doing night FCLPs in the Land of the Rising Sun, at the outpost of Atsugi. For those of you who haven't bounced here, the hazards are numerous and potentially deadly. Blinding strobe lights and bonfires, loads of other jets and prop aircraft, and a less-than-helpful tower (read "uncontrolled," and the subject of numerous hazreps) all provide fodder for ORM.

Our brief was thorough (as it always is for the seventh bounce period of the week), and we walked when the jet was ready. Earlier that day, the jet had come back down with the flaps barberpoled and stuck at an intermediate position of approximately 25 degrees. Our maintainers assured us the jet was good to go after they replaced a flap brake valve that afternoon. We also knew we would have a chance to verify their work during the pilot's flight-control checks. Everything worked 4.0 as we started our taxi. Halfway to the hold short, however, the pilot noticed the light for the flap indicator had burned out. We discussed pressing on and used a flashlight to view the

indicator. Then the taxi light burned out. Because the night was dark and rainy, we decided to taxi back to the line for some quick repairs.

After we shut down (to swap the taxi light) and restarted, we had another chance to check the flaps. Everything worked fine. We got airborne, turned to base, and went dirty. Lo and behold, the flaps would not travel past the 20-degree position! Everything else came down fine. Of course, the failed indicator light was frustrating our efforts to read the indication.

Language barriers became a factor, as the long-winded Japanese controller tried to vector us to final. When we finally got our request in, there was the usual delay and extra comm until he understood the nature of our problem, our request for altitude block, and an area to troubleshoot. We were glad when we were transferred to an Air Force controller, who gave us exactly what we wanted (5,000 feet and a radial.)

We found that the pocket checklist didn't address our problem. We checked circuit breakers but chose not to electrically lower the flaps for a couple of reasons. We knew the hydraulics were good. With the on-speed check, we figured the flaps were at least 20 degrees. The flaps were binding and further movement would aggravate the problem. Complicating our approach were still more missing lights: this time it was the indexers.

We decided to use a 20-degree-flaps approach speed, plus a couple extra knots for mom and the kids. We burned down to a comfortable weight and called the controller. They tried giving us a vector toward a thunderstorm, so we had to convince them otherwise. The approach went fine until we landed. Even though we were light, the extra speed, coupled with the wet runway and less drag, made us lean on the brakes.

"Hot brakes," signaled the checker, followed by a signal to proceed to the hot-brake area. The brakes not only were hot, they were fused, which left us stuck in the middle of the taxiway. The checker told us to shut down and called for a tow. Continuing the theme of the evening, the freeze plug on the starboard main blew, and the right tire deflated. Discouraged, we made the 50-yard walk back to the hangar.

We discussed calling ground via landline to ensure they knew where we had left our dark jet, but, figuring they could see it from their vantage point, decided against it. This turned out to be a poor choice, as CAG and the XO of one of the Hornet squadrons almost taxied into it. Ground obviously didn't know there was a Prowler there, and our skipper wasn't too happy.

Never assume, and always communicate your intentions—especially if they aren't standard—to controllers.

LT MacNichol is the NATOPS Officer for VAQ-136.

Photo-composite illustration by Allan Amen

incorrect lens setting, starts talking down the Hornet. Unfortunately, the LSO radios are never switched to channel B, so I hear nothing but silence. Here's the call to the Tomcat (on channel A): "105, three-quarters of a mile, call the ball."

The Tomcat RIO replies, "I don't think so," and deselects the ACLS. Paddles hears 105's comment (on channel A) and interprets it as a ball call. Meanwhile, in 206, I've deselected the ILS and am flying the needles instead. Engrossed in flying an on-and-on pass, I'm focused on the needles. At half a mile, I realize nobody has told me to call the ball. As I transition my scan to the ball, I'm surprised to see the lens showing what appears to be a nearly clara high pass, with the ball barely visible on the top of the lens. I make my ball call (on channel B) as I start to correct the high but receive no response. Again I call the ball—now it's coming down toward the center. Still no response from paddles. I make one last ball call, then push the throttles to mil for an in-close waveoff just as the happy lights signal me that paddles agrees with that decision.

As I clear the ship and climb away, I'm struck by the eerie symbology of needles remaining on my HUD, remarkably still showing me "on and on." Strange! Confusion sets in; I deselect the needles and continue with NORDO procedures, convinced that I must have lost my radios. In the bolter pattern abeam the ship, my radios finally crackle "206, paddles, sorry about that... we had a little problem with the lens, we'll get you next time!"


The phones are now ringing off the hook in CATCC with everyone, including the boss and the captain of the ship, wanting to know what the heck just happened.

Back in the ready room after the flight, the story slowly unfolds, and it becomes very apparent how close tonight was to a mishap. The PLAT camera replay tells a chilling tale: I watch my Hornet settle from high above the glideslope to well below, all to the tune of blood-curdling power calls, and then finally the waveoff. In the cockpit, I heard none of it, saw a stable centered-needles approach, and took my own waveoff only because I hadn't heard a "roger ball." I remember the ball coming down but did not recognize how rapidly it was falling.

What finally broke this evil chain of events was the waveoff lights from paddles and a sense in the cockpit that something just wasn't right.

What links in the chain could have been severed earlier? First, an intermittent transponder was the catalyst to this entire melee. I now make it a habit in marshal to check and double-check that I'm squawking all modes and codes. Be acutely aware that if your IFF is being called intermittent or inoperative, you may be susceptible to a sequencing problem on the approach. One solution is additional CATCC training and oversight, to prevent the inadvertent ACLS lock of the wrong aircraft. We also decided that the Air Ops status board should list recovering aircraft in order, rather than by aircraft type. Also, the departure controller, previously undertasked during the recovery, will now assist in correlation and proper order of "Mr. Hand."

What could I have done? First, I could have listened to what was said, not just what I expected to hear. The ACLS lock-on of my Hornet was clearly predicated by a call from the controller that the lock-on was at three miles, not one. I heard the call and reported the needles, but never made the correlation between the two-mile split that CATCC had called. I heard what I wanted to hear, not what was actually communicated. The Tomcat did hear the discrepancy on their final lock-on call but merely made a sarcastic comment and deselected the ACLS. If you're aware that something's wrong, then speak up definitively. You might end up saving your own life, or the life of one of your air-wing buds.

Finally, cross check, cross check, cross check! I didn't do it, and the ultimate responsibility for this near-miss rests with my breakdown. Behind the ship on a dark night, you owe it to yourself to use everything at your disposal: ILS and ACLS correlation, self-contained approach numbers, VSI, DME, and, ultimately, the world's greatest glideslope indicator, the fresnel lens. As a nugget halfway through my first cruise, my scan was unfortunately still developing. On this approach, I'd put all my marbles into one bag, the ACLS; after all, needles don't lie, right? Well, that night they weren't lying, but the story they were telling was not intended for me. 

Lt. Blake flies with VFA-34



Engine Fire at High Power

go far because another aircraft would be ready for high-power soon. I went topside to handle some ground duties and waited for the call from maintenance.

I soon found myself in maintenance control again, reading the aircraft discrepancy book. The book was full of new, open MAFs, which was typical of an aircraft coming out of phase maintenance. None of the gripes would affect the maintenance turns, however. I arrived at the aircraft to find

that I had two qualified flight engineers to help me. I set up the cockpit and then proceeded to do my walk-around inspection of the aircraft. While it was only a maintenance turn, I still wanted to give the plane a good inspection, especially after a period in the hangar. Then I called the lineman and the maintenance crew to the flight station for a quick brief on both engine starts and the maintenance part of the event. I included all of our standard items for a maintenance turn, including ground emergencies and responsibilities throughout the turns. Having a second qualified FE aboard to serve as the brake rider in the copilot seat and run the checklist would pay great dividends later that day.

I called for starts and subsequent taxi to the "hammerhead" for maintenance. Once established

by Lt. Billy Ray Davis

The importance of the aviator's relationship with maintainers became very evident one December afternoon in Sigonella, Sicily, while I was serving as the squadron taxi pilot. The operational tempo during this part of our deployment was high, the maintenance department was hopping, and the duty Flight Engineer (FE) and I expected to be busy with high-power turns on a couple of aircraft.

As a taxi pilot, I take pride in bringing back an up aircraft. My first taxi event of the day went well. The maintenance chief told me not to

at the designated area with the aircraft pointed into the wind, I set the parking brake and reminded my aft observers to stand by for the start of maintenance. Before running up the engines, I told the duty FE that if we got a fire warning while at high power, we'd pull back the power levers before pulling the e-handle for shut down. This is a standard procedure for high-power turns, which ensures that the fire warning is valid. The checks on the No. 1 engine went well.

For the No. 2 engine, we began with the checks for the fuel governor, pitchlock and reverse-shaft horsepower. These checks verify that the fuel governor limits engine speed in the event the prop governor fails. We also intentionally pitchlock the propeller to verify that the blade angle is maintained, and, finally, we check the reverse-shaft horsepower. Midway through the procedure with the propeller pitchlocked, we heard the undeniable sound of a fire-warning horn and saw the glow of the lights around the e-handle. Thoughts of all the briefed items flooded my head. I looked at the FE in the copilot seat as he announced, "Fire warning on two."

I said, "Break pitchlock and retard the power levers to flight idle to verify." All the while, my eyes were glued to the glowing light as I waited for it to go out. I expected the fire warning to extinguish once the power levers were pulled back. I watched and waited for what seemed to be an eternity, and then I heard "Flight idle" from the FE, followed shortly by "Check me on two."


I responded, "E-handle two, engine fire on the ground checklist." My mind was catching up to the fact that we had an engine fire. We raced through the checklist (the fact that I had another qualified FE in the copilot seat helped), getting the e-handle out and discharging the extinguishing agent into the nacelle. As the fire-warning light went out, I started to feel a sense of control.

I made my first call to ground control (to let them know we'd had an emergency and had shut down an engine), then called base. We arrived at *Alternate HRD* on the checklist; this step required us to assess the status of the fire to determine if we needed to use the other extinguishers. I asked the aft observer to visually check the nacelle. He reported seeing some smoke, but it had started to slow. Then one of the maintainers on board called out that she saw smoke and discoloration on the

nacelle. This was a critical point in the event, because if we had a confirmed fire, we would have to get out of the aircraft. I asked the FE in the copilot seat to check the nacelle for bubbling or peeling paint. The duty FE and I discussed what we would do if we still had the fire indications. We decided that if we had to discharge a second bottle, we would continue on the checklist. Once the necessary calls were made, we would secure engines. My second FE said the nacelle still was burning.

I called for the second bottle, then announced that we would evacuate the aircraft via the starboard over-wing exit. A sense of urgency became pervasive. I called Ground, advising them that I had continued fire indications and that I needed firefighting assistance. I repeated the call, not sure if the ground control had heard and understood. I then quickly called Base, at the same time checking the FE on the e-handles of the remaining engines, saving No. 4 for last, so I could get that last radio call out. Then the aircraft went dead, except for the sound of the command bell ringing to signal the egress.

As I exited the flight station behind the FE, I glanced out at the engine and saw the large discoloration on the nacelle. I wondered if I was overreacting. The smell of burning wires and melting paint convinced me otherwise, so I slid down the flap to join the rest of the crew. As we waited for the fire trucks, I watched the aircraft, and I realized at that moment just how dangerous our job can become in a matter of seconds. I also realized just how important it is that we execute our procedures quickly and efficiently as a crew.

An igniter plug on the engine had failed. As the details of the mishap became clear to me, I was aware of just how close we had come to a Class A mishap. Damage to the aircraft was significant, but the total effect was minimized because our crew knew and followed the procedures. 

[This story is a fine example of following NATOPS procedures, using good judgment, and practicing exceptional crew coordination. This mishap also dramatizes why to include maintainers in CRM programs that promote decision-making, assertiveness and communication skills.—LCdr. Mike Rogers]

Lt. Davis flies with VP-16.

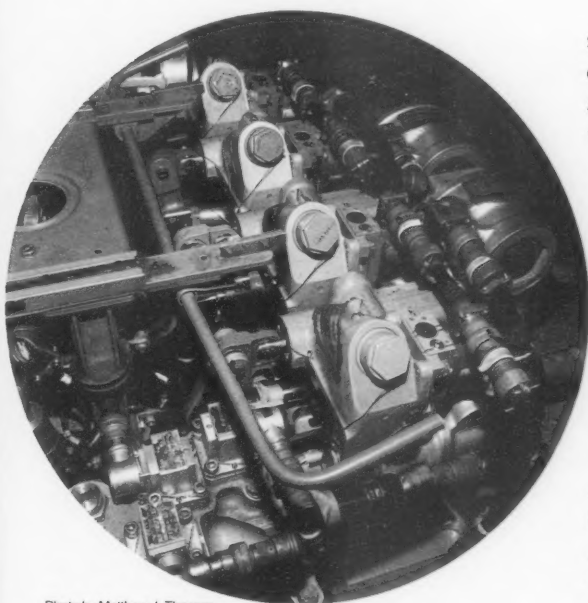


Photo by Matthew J. Thomas

Why would a Seahawk randomly hop while taxiing? The author found the surprising answer in the collective-boost servo under the turtleback (photo taken in an HH-60H).

solve the problem, and we continued taxiing to the helo pad for hover work. Thinking it may have something to do with yaw control, we discussed what we would do if we lost thrust in a hover.


After the takeoff checks, I smoothly added power, lifting the helo into a stable, 10-foot hover. The controllability checked normal, so we continued with the remaining hover checks. After completing the hover portion of our vibration run on the VATS box, we departed the pattern to collect the remaining data for the track and balance. The aircraft flew normally, with no noticeable deviations from the trimmed attitude. While taxiing back to our line, I noticed the same hopping and again tried to isolate the cause. The wind was gusty that day, but I had never experienced anything like this.

After a normal shutdown, I reinspected the hydraulics bay and the rotor head for anything unusual. I found nothing. I asked the maintenance control chief if anyone had reported anything

similar, and he said no. The track and balance we completed was out of limits, so mechs made the adjustments, and we headed back out for another vibe run. As we taxied out to the helo pad, the aircraft started randomly hopping again. This time I had my copilot take the controls to see if there was anything different in the two sets of controls. There wasn't.

Not feeling good about the condition of the aircraft, we taxied back to the line, shut down, and asked for an airframes troubleshooter. After explaining the problem to him, he opened the hydraulics bay and asked me to move the flight controls while he inspected the boost servos. After a minute, he climbed down, told us he'd found the problem, and asked us to shut down the APU. I eagerly climbed on top of the aircraft and was amazed when the troubleshooter pointed to the aft end of the collective-boost servo. The clevis had broken off from the cylinder rod. The break was so clean that when the two pieces matched up, you could not detect the break (hence the reason for missing it on preflight). The break could only be detected when the flight controls moved. Whenever the cylinder rod moved forward, the pieces would separate. When it moved aft, it would bump the loose end, causing a small impulse into the collective channel (which explained the hopping during taxi).

If the collective channel was in two pieces, how could we control the aircraft at all during flight? On the H-60, a C-shaped bracket runs parallel to the collective-boost servo, connecting the input and output of the servo in the event of such a failure. Another function of the bracket is to allow the aircraft to be flown without the using the boost or pilot-assist servos. After talking with the maintenance control chief, I found out that he knew of similar instances. Knowing I wasn't the only one to have this happen made me feel a little better, but I still felt less than smart for taking the aircraft flying in the first place.

As an engineer, I certainly appreciate the ingenuity of the system design. As a pilot, I am just plain thankful. 

LCdr. Zupfer flies with VC-8.

Man, That's Bright! (or

by Cdr. Eric Devita

I had briefed as part of a section of aircraft on an air-intercept upgrade sortie. It was a dark night, but I was flying with a good nugget, and this would be a simple event for him. It was 2 v 2 for some air-to-air training, and I figured the darker, the better, for night-vision goggles... or so I thought.

As I preflighted my mighty Lot 10 FA-18, I felt my usual confidence in our maintenance department. After all, we've won the Ltjg. Bruce Carrier Award for the best maintenance department on the West Coast two years running. I pressed on to the catapult without a hitch. Launch was normal, and I was climbing and turning toward our CAP point within minutes. I had just put on my NVGs, which requires turning down all the cockpit lights in our lot aircraft. As I changed radio frequencies, all the cockpit lights came on. Yes, I mean all: Floodlights, emergency ladder lights, and lock-and-shoot lights were blazing, and the gear tone was beeping. Most worrisome were the fire lights, which always look scary, but especially so while wearing NVGs.

At first, I just stopped breathing and figured it couldn't be as bad as it initially seemed. The HUD was working, the engines looked fine, and the hydraulics were stable. I took off my goggles, told the ship I would be returning overhead and would like to talk to a squadron rep. I assumed the problem was a stuck lights-test switch. I tried moving it, but that wasn't the problem. I also discovered that I had no up-front control (UFC) when the ship asked me to change frequencies. This led me to believe there was an electrical short somewhere.

I removed my mask to see if I could smell anything burning. No dice. What to do now? I figured that something I had energized was causing the problem. I started turning off my cockpit

instruments, one at a time. First the radar, followed by the radar altimeter. No luck. Next was the right DDI. "Aha," I thought, "that's the ticket!" All the lights went out. Just to verify I had it right, I tried turning on the DDI for just a second. There they were again, still scary. I secured the DDI immediately. "The electricians aren't going to believe this one," I thought. "What is the connection between the DDI and lights-test switch?"

I finally got the UFC back up and spoke to my squadron rep. He agreed we should bring back the jet on the current recovery. I passed the problem of landing with no TACAN, no ACLS or ILS, and no radar altimeter on the HUD. The result was an uneventful recovery on a very dark night. I would have to personally talk to the AE troubleshooters about this one.

Cdr. Devita is XO of VFA-115.

Part 2

by AE1(AW) Jose Mendoza

When I talked with to the pilot, I couldn't believe his gripe. It didn't make any sense that all the cockpit lights could energize just by turning on the right DDI.

We asked a few more questions just to make sure we understood the problem. Then we looked at the lighting schematics to identify any parts that might cause this problem. We picked out a couple of control boxes in the cockpit and a relay panel in the avionics bay. We decided to make a visual inspection, starting with the cockpit. No funny smells, burn marks, or loose boxes in there. The avionics bays were next. Upon opening the door to the avionics compartment, we immediately smelled

What the Pilot Saw)


I started turning off my cockpit instruments, one at a time.

burnt wiring. A closer look revealed that one of the wire harnesses that connects to the relay panel was nearly charred through.

The pilot's airborne problem could have been much worse. When we inspected the circuit-breaker panels, we discovered 16 tripped circuit breakers. We inspected the charred harness to determine what had caused it to burn. On the inboard side of the harness, there were signs that the harness had been rubbing against one of the relays mounted on the relay panel. Once the harness rubbed through to the bare conductors, zap! You've got arcing and sparking.

We decided to get the jet down to the hangar bay for a thorough inspection and to begin repair. QA and Maintenance Control wanted to know if this was happening to any other jets. One of our

more experienced electricians in QA remembered a technical directive (TD) that had been incorporated almost 10 years ago on this particular cable for the same reason. We looked at our other 11 aircraft, and were shocked to find that through years of maintenance, the TD slowly had been unincorporated. It took us about five days to repair the damaged cable. Maintenance control reissued the TD to prevent this from happening again.

Who keeps track of these things? Is there another TD that was incorporated 10 years ago and is now gone due to maintenance or some other factor? We've sent Technical Publication Discrepancy Reports (TPDR) to ensure this one doesn't come up again. 

AEI Mendoza is Work Center 200 supervisor and CDI at VFA-115.



No, I'm Not Superstitious


by Cdr. Rick Watson

One evening in 1968, when I was 8 years old, my sister and I were playing with an Ouija board. Most folks view Ouija boards as harmless parlor entertainment, but some people think the device lets them communicate with spirits. My sister and I asked all sorts of childish questions. Then we decided to ask the board to predict the dates when all the members of our family would die. Person by person, the board pointed out the fatal years. These dates ranged from around 2020 to 2040, and all seemed plausible to me. When we asked about my date of death, the board replied with the year 1982. At the time, this did not concern me be-

cause, as an 8 year old, 14 years in the future seemed an eternity, and I didn't believe in Ouija boards anyway.

Nevertheless, my experience with the Ouija board always seemed to lurk in the back of my rational mind. In 1982, I was commissioned and entered flight training in Pensacola.

Someone once asked me how I felt about the risks involved in naval aviation, and I remember saying, "It's not too dangerous because I usually have an instructor with me to keep me out of trouble." Flight training progressed smoothly. I had no close calls. By December, though, the little voice in the back of my head would not let me forget the Ouija's prediction.



My experience with the Ouija board
always seemed to lurk in the back of
my rational mind.



Photo-composite by Allan Amen

itious

On Dec. 30, 1982, I was ready for my final flight of the year: the navigation solo. My pucker factor was way up there. The day's forecast almost precluded solos because of projected winds and rain. But the weather held up well enough to launch. I took to the air, focused on safely transiting to the working area, navigated to a series of geographic locations, and started completing the mandatory maneuvers. I didn't skip a single navigation check point or maneuver (I was afraid of being caught cheating by some unseen flight instructor who might be stealthily monitoring my progress).


Then, halfway through the hop, I got a radio call reporting that all solos were being recalled

immediately to Whiting because of deteriorating weather. My memory of the Ouija board's prediction began to surface, and a sense of unease settled in. I worked my way back to Whiting, dodging numerous low-lying clouds. Home field was reporting 10-knot crosswinds, more than I had seen before, but within limits for solos. A light rain was sprinkling the area. I heroically mustered all of my fledgling aviation skills and landed. Taxiing back to the line, I already was mentally celebrating. I had defeated the Ouija board's prediction and was ready for the New Year's weekend. I taxied in and shut down.

I reported to the ODO, "Mission complete."

He said, "Why didn't you check in with me on the radio prior to shutting down? You're fifteen minutes short, and I want you back in the local bounce pattern to complete the X. Go check out another aircraft."

I was stunned. I thought I'd dodged a bullet, but now the specter of my demise while flying in the "within limits for solo flight" local weather pervaded my consciousness. But I had no choice. Refusal to comply with the ODO was not an option. Just as I turned toward Aircraft Issue, the squadron ops officer chimed in. "Hey, we can waive that fifteen minutes if everything else was completed." He gave me the option of flying some more that day. I respectfully declined.

So there I was, New Years Eve, 1982. I spent a quiet evening at home. 

Cdr. Watson is the XO of VT-28.

Red Line Fuel (and

During our transit home from WestPac, we finally had a chance to catch up on our night-shipboard-currency requirements. We transited from Darwin, Australia, to New Caledonia beneath a big, bright moon, and there's nothing that pilots who don't fly much at night like more than that. The only element not in our favor was the weather. The seas were about 15 feet, and relative winds were routinely blowing at 45 knots, with occasional gusts to 50. This created particular problems for flight operations. The ship had to maneuver off PIM whenever we engaged rotors, launched and recovered. Nevertheless, eager to renew our qualifications, each night, we scheduled a launch in hopes of getting our required night time and some deck work.

By the time it was finally my turn to requalify, the weather had not improved. The flight deck was pitching and rolling, and the winds were heavy. My HAC decided that we wouldn't work the deck at all. His plan was to have the ship turn for best winds, launch, burn a bag of gas, and then, based on the difficulty of recovery, either refuel and go back out or call it a night and shut down.

Once off deck, we spent most of our time practicing search patterns and SAR scenarios. The night grew considerably darker than we had anticipated, and unexpected cloud cover obscured the moon. With about 40 minutes of gas left, we informed tower that we were going to drop a smoke five miles astern of the ship. "Roger, be advised the ship is making 17 knots at this time," they responded. We rogered up to tower, but the significance of their call was not evident to us at the time.

After dropping the smoke, we began conducting a practice sector search. True winds were 37 knots, requiring huge corrections in our pattern in order to successfully pass over datum. The challenge of maintaining a good search pattern became the

The winds, from which we had been somewhat shielded when we were behind the superstructure, began to churn the helicopter with new ferocity.

primary focus of our flight. We didn't notice a bigger problem. The prevailing winds were blowing us directly away from the ship.

With approximately 20 minutes of fuel left, we finally aborted our search pattern, advised tower of our fuel state, and told them we were heading back. Tower replied that they had set flight quarters and would be standing by to receive us. The TACAN said nine miles, but the ship was not in sight.

The first pang of nervousness hit me after a bit of quick mental math told me the fuel was going to be an issue. In negligible winds, we should have been able to cover nine miles in approximately five minutes. The ship, however, was running from us at 17 knots into a 37-knot wind. This meant that if we were

and How We Got There)

Helo photo by JO2 Charles Neff
Photo-composite by Patricia Eaton

indicating 100 knots, we were only making 46 knots over the ground. The full impact of our situation finally hit me. Nine miles at 46 knots was going to take us about 13 minutes. I began to quietly squirm.

The DME clicked off more slowly than I had ever seen. Eight minutes or so passed, and we were still at five miles, with both low-fuel lights beginning to flicker and the ship still not in sight. The cloud cover was making it hard to see. We continued to fly to the head of the needle, constantly cross-checking our mag compass. I finally spotted the ship at about four and a half miles. Seeing the ship did relieve some of my anxiety and I observed, "I was getting a little nervous there."

The HAC responded, "Yeah, me too." We both knew that we needed to get on deck without any undue delays.

The next few minutes and miles seemed to stretch on to infinity. My eyes must have scanned between the fuel gauge, the DME and the ship's lights a hundred times. By the time we were a mile astern of the ship, we were at about 300 pounds a side (10 minutes of fuel). We called tower to inform them of our position and low-fuel state. Tower informed us that the ship was making a turn and going dead in the water in order to get winds for recovery. I stirred in my seat, quietly furious that the ship had not made the necessary turn minutes ago. Talk about an undue delay. We

circled aft of the ship for what seemed to be another eternity, waiting for them to steady up.

We were down to 260 pounds of fuel per side when Tower gave us the go ahead: "You have green deck, winds are 15 to starboard at 33, gusting to 39 knots, pitch 2, roll 3." The winds called for a left-seat, port-to-starboard approach, so I took the controls and began positioning the helicopter on final.

But I didn't feel we were home free. Instead, that old feeling of anxiety resurfaced. Although we were indicating about 50 knots, we were only making 10 to 15 knots over ground because of the heavy winds and occasional strong gusts. With each gust, the helicopter rose and fell 40 feet, even though I was holding the collective steady. The

The aircraft resumed its frightening oscillations as the gusts changed the lift on the bird every second.

power surges from the engines became audible in the cockpit. "This is going to be fun," I said.

I slowed the aircraft and crept over the rolling deck. As I began to steady the aircraft and started to gently descend, a downdraft caught us, and I had to pull an armload of power to avoid meeting the deck with the delicacy of an anvil falling from a three-story building. My adrenaline-enhanced pull brought the helicopter level with the tower. The winds, from which we had been somewhat shielded when we were behind the superstructure, began to churn the helicopter with new ferocity.

I tried to calm my nerves and began to settle the aircraft slowly back down toward the deck, convinced that this undue delay was something that I actually could control. I found myself staring at the superstructure as my eyes hunted for something stable to use as a reference point. As all helicopter pilots know, spotting the deck is the last thing that you want to do while trying to land on the boat, especially in heavy seas. This is when the real bucking began. Finally, after about 20 seconds of pilot-induced oscillations, I began to settle the aircraft and come down over the spot. Just then, the crew chief called, "Wave off, let's take it around."

For a split-second, I felt steady over the deck and thought about ignoring his call. Later, while talking with the

HAC, he said that he thought I was going to go for it, because we finally were in a good position to make the landing. My training took over at this point. We had briefed that any member of the crew could call a waveoff, and I did what we had briefed.

The HAC took the controls on the climb-out and brought the aircraft around for what I believed would be our last shot at getting the aircraft on deck before we hit our red-line fuel state. I double-checked the fuel gauge. We were down to 230 pounds of fuel per side, which could mean five minutes or one minute of fuel left. The strong headwind continued to push us from the ship, widening our pattern and costing us precious fuel.

If I had looked at the fuel gauge a hundred times during our transit from the smoke to the ship, I looked at it a thousand times while the HAC flew the pattern and made his transition to final. The aircraft resumed its frightening oscillations as the gusts changed the lift on the bird every second. Again, the engines could be heard winding up and slowing down in reaction to the varying load demand. To my great relief, the HAC, flying cross-cockpit, brought the aircraft to a semi-stable hover and began to settle the aircraft to the deck. But the helicopter began to buck again. "Hold on everyone," he said. "This is going to be a hard one." He placed the helicopter over the spot, and the collective came down in a hurry. In a few seconds, we were solidly on deck.

Silence reigned inside the aircraft for a few moments. I sat there, confused about how quickly everything had gone so wrong. I knew one thing for sure, and I said it: "I think I'm done for the night!" The decision quickly became unanimous.

Our lack of situational awareness had put us into a serious dilemma. We had been comforted by how close the ship was, but the time required to arrive on deck was almost beyond our capability.

No training event is important enough to push the envelope. If weather is bad, pitch-and-roll limits are exceeded, and winds are out of limits, I will no longer launch on a training flight, no matter how big the moon is.

Finally, this experience reenforced the importance of waving off when someone calls for it. I can't imagine how I would have explained to my crewman that I didn't think his assessment of our safety was accurate. I had prided myself on the fact that I had never had to wave off in the H-46. I realize now that shouldn't be a source of pride. We helo bubbas need to know our limits. That means doing ORM, including it in our briefs, and then flying what we brief.

LT. Cristo flies with HC-11.

No News Is



Not-So-Good News

by LCdr. Jeffrey Winter

We usually think of the airborne phase of a sortie as the most likely time for a mishap. However, the risks start while you're still on deck, and a few moments of inattention can lead to extreme peril before a single aircraft is launched.

It was a hot, muggy day off the coast of North Carolina. We were busy participating in routine, pre-deployment workups. I was the mission commander for a strike into the BT-11

target area, which is only important because I had a lot on my mind and hadn't gotten as much sleep as I normally do.

Planning and briefing a strike during a major exercise was a pain in the rear, but other than that, nothing was unusual. Man-up, start and taxi all went according to the brief. I spread my wings just aft of cat 4, as the yellowshirt directed me into position behind the shuttle. This is the first time during the Hornet's launch sequence when you

must advance the throttles to power settings that are dangerous to those immediately behind the aircraft. On most days, I check the mirrors to make sure the JBD is elevated behind my aircraft. On this day, I did not.

I put power on the aircraft and engaged the shuttle. After the ordnance crew armed my missiles, the catapult operator placed my jet into tension, and I selected military power. For the next several seconds, I wiped out my controls, checked my engine instruments and flight-control computers, and carried out my personal pre-catapult ritual. I then looked up at the shooter and gave him a crisp salute. He did not salute back. Instead, he dropped to a knee and gave me the suspend signal.

I guessed that I'd forgotten to wipe out my rudders in a momentary lack of attention to detail. As I had been taught since flying the mighty T-2C Buckeye in 1990, I had no intention of retarding my throttles until someone was standing in front of my aircraft. Shortly thereafter, the Air Boss directed me to throttle back. It didn't sound like he was asking me to do him a favor. I relented, simply because I knew he would not ask me to do that unless someone was in imminent danger or already hurt.

I had no idea why I had been suspended. I was still in position on cat 4 when I heard a helicopter-search effort being directed on the tower frequency. No one was certain, but there was a chance that my jet exhaust had blown a Sailor overboard. The helos searched for approximately 15 minutes to no avail. I was getting only bits and pieces of information about the SAR effort, and, as a result, was growing more confused by the minute. My brain capacity had immediately been reduced to a maximum of two thoughts at any given time. First, there was a reasonable chance that I had hurt someone. Second, I hoped my morning coffee would kick in so I wouldn't have to wait long for my urinalysis. Not very sympathetic, I know, and clearly not the optimum allocation of cerebral assets.

I expected to taxi into one of the valet Hornet parking spots, but instead got a trip to the forward catapult. Fortunately, I remembered every discussion I had ever heard about the importance of compartmentalization. I had planned the strike, I had briefed the strike, and now I was going to


lead the strike. Whatever had happened was obviously beyond my control, and the ship's chain-of-command decided it was OK to launch me on that event.

The flight went fine, and nothing was significant about the recovery, except that I most likely got robbed by the LSOs. Now that I was on deck and had a chance to collect my wits, the pieces of the puzzle started falling into place. When I engaged the shuttle and went into tension for the first time, the JBD never raised behind my aircraft. I hadn't blown anyone overboard, but two flight-deck crewmen had been injured. One had minor cuts and bruises; 20,000 pounds of thrust had blasted the other into a parked F-14. He suffered severe cuts and bruises and a cracked sternum.

My jet exhaust had also blown another Hornet into a parked Tomcat. The pilot of the Hornet had been my roommate on two cruises, and, ironically, we had witnessed a similar incident on a different ship several years before. In that case, an F-14 had blown another F-14 over the deck-edge scupper, and the aircrew ejected into the water. This time, my roommate was spared an ejection, but the frame of the FA-18 had bent so badly that the aircraft never flew again. The F-14, on the other hand, had only minor damage. Score one for Grumman.

Any number of people, including me, could have seen that the JBD was not raised when I engaged the catapult shuttle. Everyone, regardless of rank or title, who sees something wrong on the flight deck has the right and the obligation to stop what is happening.

I have witnessed a mishap of this nature in each of my two airwings. That is an eerie statistic. You may think that telling a catapult crew to remember to raise the JBD is akin to telling a dentist to brush his teeth, or a pilot to lower his gear for landing. Even though these tasks seem obvious, on this day, at least one of them was not. Mishap reports teach us that the most routine tasks are often the easiest to overlook.

In spite of being shaken by the events on the flight deck, I flew a mission and recovered an aircraft on the ship in Case III. Compartmentalize external factors, and don't turn one mishap into two. 

LCdr. Winter flies with VFA-86.

The CICO normally acknowledged the fuel dump on call and announced to the front end each passing minute. This time, the crew was deep into debriefing their mission and was not focused on the approach.

Breakdowns in communication and aircrew coordination were evident in this flight. The lack of backup on the fuel adjustment and the disparity between my bingo calculation and the aircrew's calculation were evidence. While I calculated numbers to the primary divert, the aircrew based their numbers on a divert 25 miles farther away. When I reported my bingo numbers, I should have included the destination along with the state.

The quick reaction of CATCC and a solid approach into the 3-wire prevented us from testing our bingo numbers. Yet we had put ourselves and the air wing in a bad situation. A more disciplined use of checklists and better habit patterns would have prevented this situation. Using operational risk management during the brief might have helped us focus on differences between unit-level training and operational missions.

Lt. Bryla flies with VAW-125.

My Side of the Story

by Cdr. R.H. Ricardo

I never thought I could dump down to the standpipes, and I never would have believed I would do it as a skipper with close to 4,000 hours

in the E-2. Yet when I look back on this event, I can see that all the signs were there.

After months of flying in two challenging theaters where the prospect of real conflict was continually peeking around the corner, things quickly faded to routine when the pressure eases off a little. I should have recognized this fade to routine when night traps started to get "comfortable."

In my four E-2 squadrons, we always put our fingers on the fuel gauge when the dumps came on. Even with the new strip gauges, I would find some place near the gauge to place my hand until the dumps were off. When my copilot didn't do it this time, I thought I wouldn't make a big deal out of it and let it go. I shouldn't have. That habit serves a good purpose.

After a couple of Class A mishaps a few years back, the E-2 community took a hard look at how to better involve all members of the crew. Five heads are better than one. When the dumps come on, the mission commander usually calls out each minute to remind the crew to look at the gauge. We didn't do it that night. I distinctly remember the absence of the time hack from the back end, yet I did nothing about it.

This incident didn't leave us with that "thousand-yard stare," but it featured all the ingredients of some of our more notorious mishaps. The holes in the Safety Center's "swiss cheese" were lining up just fine.

Cdr. Ricardo is the commanding officer of VAW-125.

On the Cat

Coming Attractions for August

- Welcome to the Land of NOD
- High Noon with a Section of Talons
- Which Way Is Up?

A black and white photograph of a fighter jet flying in a cloudy sky. The jet is in the upper right corner, flying towards the left. The sky is filled with large, dramatic clouds. The text "FLYING" is superimposed in large, bold, white letters with a black outline. Below it, the text "isn't dangerous." is in a smaller, bold, black font. Further down, the text "CRASHING" is in large, bold, black letters with a white outline. Below that, the text "is dangerous." is in a smaller, bold, black font. The bottom half of the image shows the wreckage of a plane on a rocky shore, with the ocean in the background.

FLYING

isn't dangerous.

CRASHING

is dangerous.

